# **Curriculum Vitaé**

Name: Dr(Mrs). Jyoti Srivastava

**Designation:** Scientist D

**Affliation:** Quaternary Department

Birbal Sahni Institute of Palaeosciences,

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Uttar Pradesh, India.

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## **Academic Qualifications**

- PhD in Botany from Lucknow University (awarded in July 2013) with specialization in
  Quaternary Palynology and Coastal ecosystem. Research topic for the doctoral degree
  entitles "Late Quaternary Palynochronostratigraphy in North- eastern part of Cauvery
  delta: Implications in palaeoclimatic and sea-level studies".
- CSIR NET Qualified
- MSc. in Botany from Department of Botany, Centre of Advanced Study, Banaras Hindu University, Varanasi in 2006 (Gold Medalist).
- BSc. (Zoology, Botany and Chemistry) from Isabella Thoburn PG College, Lucknow in 2004.
- Intermediate from Loreto Convent, Lucknow in 2000.
- High School from Loreto Convent, Lucknow in 1998.

# **Work Experience**

Designation	Organization	Duration		Nature of
		From	To	Job
Scientist-D	Birbal Sahni Institute of Palaeosciences, Lucknow	January 2021	Present	Research
Scientist-C	Birbal Sahni Institute of Palaeosciences, Lucknow	January 2017	December 2020	Research



Scientist-B	Birbal Sahni Institute of Palaeosciences, Lucknow	October 2013	December 2016	Research
Senior Research Fellow (SRF)	DST funded Project in Birbal Sahni Institute of Palaeobotany, Lucknow	May 2011	January 2012	Research
Junior Research Fellow (JRF)	DST funded Project in Birbal Sahni Institute of Palaeobotany, Lucknow	May 2009	May 2011	Research
English Trainer	Global Centre for Languages, Lucknow	January 2008	May 2009	Teaching

#### **Research Interest**

Jyoti has an interest for Earth system dynamics and climate change over a range of timescales with a concern for human-environment interactions – past, present and future. This involves, elucidating the impact of past global climate change on the ecology of the deltaic systems, the palaeoecological record of mangrove vegetation on the continental coastline and the development of species distribution model to predict the impact of global warming on the biosphere. The investigator holds expertise in mangrove palynology, palaeoecology and palaeoclimatology.

# **Scientific programmes/Projects**

- 1. **Institute Project** Reconstruction of late Quaternary climate from floral records of Kanara region, SW coast of India.
- 2. **Institute Project** Early Paleogene climatic records and biostratigraphy: Integrative multiproxy approach from South Shillong Plateau (Meghalaya) and lignite-bearing sequences of Rajasthan.
- 3. **FastTrack project for Young Scientist from DST, India** (SR/FTP/ES-84/2014) Mangrove dynamics and relative sea level changes during late Quaternary in Godavari Delta.

# **Field Experience**

Field survey and collection of sediment samples for research work in different projects has been conducted in the Southeast coast, southwest coast and South Shillong Plateau, Meghalaya in India.

Thesis supervised: Ph.D (Two ongoing)

- 1. Progradation of Mahanadi delta along Southeast coast of India (Ms. Pujarini Samal, DST-INSPIRE JRF)- Co-Supervisor- Ongoing (PhD registration- Annamalai University).
- 2. Reconstructing late Quaternary climate and vegetation biomes from palaeoecological (fossil pollen) data and species distribution modelling in Central Ganga plains (Ms. Pooja Saraf, JRF)- Supervisor under AcSIR scheme.

# MSc/B.Tech student(s) trained for Palynology:

Guided/provided palynological training to 8 students of different universities/Institutes.

# Awards/Scholarships

#### Awards

- 1. **Mrs. Prem Kumari Singh Memorial Gold Medal** for securing the highest marks in Ecology in MSc Examination, 2006 from Banaras Hindu University.
- 2. **CSIR NET certificate** in 2007.

### **Scholarships**

- 1. Junior Research Fellowship in a DST funded project at Birbal Sahni Institute of Palaeobotany (2009-2011).
- 2. Senior Research Fellowship in a DST funded project at Birbal Sahni Institute of Palaeobotany (2011-2012).

# **Training /Study Visits:**

- Refresher course organized by the Regional Training Institute, Geological Survey of India, Northern region, Lucknow from May 11-16, 2015 on the theme "Paleontology and Biostratigraphy".
- CNRS Summer School POLQUANT on "Pollen analysis and its applications for vegetation reconstruction POLQUANT" which was conducted in Moulis, France from 29<sup>th</sup> August-2<sup>nd</sup> September 2016.
- Field training for vegetation recording based on Crackles Bequest protocol Nawabganj Bird Sanctuary from 22-23 January 2019.
- Certificate course on Species Distribution Modelling (SDM) in November 2020.

#### **Lectures delivered:**

- 'Mangrove Palynology: Implications in Palaeoclimatic and sea level studies' in 2015 at Department of Geology, Guwahati University.
- 'Introduction to Palaeobotany' at Navyug Mahila Mahavidyalaya, Lucknow.

- An invited lecture 'Pollen based quantitative reconstruction of past climate and vegetation' on the occasion of International Fossil Day on 16th October 2020 for Palaeontological Society of India, Pune-Mumbai Students' Chapter.
- 'Pollen analytical tools and techniques' on 6 October 2020 for Birbal Sahni Institute of Palaeosciences AcSIR coursework.
- 'Functional interactions between landcover and biodiversity' on 18 November 2020 for Birbal Sahni Institute Palaeosciences AcSIR coursework.
- 'Assessment of landscape and linkage/corridors' on 18 November 2020 for Birbal Sahni Institute Palaeosciences AcSIR coursework

# **Recognition:**

- Won the 2<sup>nd</sup> Prize for Best Poster award for poster presentation entitled "Estuarine ecosystem dynamics in response to Holocene climate and sea level changes in southeast coast India: Evidences from pollen and sedimentary archives" in NECLIME 2016.
- Invited as a jury for model display event in the "National Geography Olympiad and Geofest International-2015" held at City Montessori School, Lucknow on 4<sup>th</sup> November 2015.
- Nominated as a mentor to nurture school students about science, as desired by Vijnana Bharti.
- Selected for INQUA Congress Bursary 2019 as a full delegate for attending the 20th INQUA Congress from 25-31 July 2019 in Dublin, Ireland.
- Nominated as a panelist in a panel discussion on 'Women in Science' for National Science Day and attended a Vigyan Samachar workshop from 28-29 February 2020 in CSIR-IITR, Lucknow.

# Memberships/ Fellowships of scientific/ professional bodies/ societies/ academies

- Life Member, Palaeobotanical Society of India, Lucknow
- Life Member, Palaeontological Society of India, Lucknow
- Member, Association of Quaternary Researchers (AOQR)

# **Representation in Committees/Boards:**

• Member of the Editorial board for the journal "Geophytology" of, The Palaeobotanical Society, Lucknow from 2016-2018.

- Member of the ECR Editorial team of 'Quaternary Chronicles'-A Quarterly online Newsletter of the Association of Quaternary Researchers (AOQR) Society.
- Member of AcSIR coursework (biological sciences) committee.
- Member of BSIP report preparation committee for monthly report sent to DST.
- Member of BSIP Computer and Website Committee.

## **National/International Conferences, Seminars**

21 National and 6 International conferences attended.

### **Additional Work:**

- 1. Worked on a Research Work "Effects of Diverse Environmental stresses on Scenedesmus sp." for the partial fulfillment for the award of the Degree of Master of Science in Botany in B.H.U.
- 2. Delivered a lecture on "Genome Organization of Synechocystis PCC 7803" in Department of Botany, B.H.U.

### **Publications:**

- 1. Manoj, MC., **Srivastava, J.**, Uddandam, P.R., Thakur, B. (2020). A 2000 Year Multi-Proxy Evidence of Natural/Anthropogenic Influence on Climate from the Southwest Coast of India. Journal of Earth Science, 31(5): 1029–1044.
- 2. **J. Srivastava** and L. Alappat (2020). Ecological impacts of Coronavirus lockdown or 'Anthropause'. Quaternary Chronicles, AOQR newsletter 2(2), 8-10.
- 3. Santosh K Shah, Vivesh Kapur, MC Manoj, **Jyoti Srivastava** and Vandana Prasad (2020). Recent Advancement(s) at the Birbal Sahni Institute of Palaeosciences, Lucknow: An Overview. Proc Indian Natn Sci Acad 86(1), 675-688.
- 4. **Jyoti Srivastava** and Vandana Prasad (2019). Evolution and paleobiogeography of mangroves. Marine ecology 40(6), e12571.
- Jyoti Srivastava, Anjum Farooqui & Priyanka Seth (2018). Pollen-vegetation relationship in surface sediments, Coringa mangrove ecosystem, India: palaeoecological applications, Palynology, DOI:10.1080/01916122.2018.1458755.
- 6. **Jyoti Srivastava** and Anjum Farooqui (2017). Holocene climate and relative sea level changes in Cauvery River Delta, India based on Pollen and sedimentary records. *Journal of Palaeontological Society of India* 62(2), 193-204.

- 7. **Jyoti Srivastava** and Anjum Farooqui (2017). Fluctuations in relative sea level and mangroves in the Coleroon estuary since ~4.6 ka: A palynological study from SE coast of India. *Geophytology* 47(1), 11-26.
- 8. V. Prasad, T. Utescher, A. Sharma, I. B. Singh, R. Garg, B. Gogoi, **J. Srivastava**, P. Uddandam, M. M. Joachimski (2018) Low-latitude vegetation and climate dynamics at the Paleocene-Eocene transition A study based on multiple proxies from the Jathang section in northeastern India. Palaeogeography Palaeoclimatology Palaeoecology 497, 139-156.
- 9. Singh VK, Saxena A, Verma P, Ranhotra PS, Agnihotri D, **Srivastava J**, Manoj MC, Quamar F. India International Science Festival 2015-Meeting report. *Current Science* 110(5) March 2016, 756-757.
- 10. Thakur B, **Srivastava J**, Uddandam P, Manoj MC, Prasad V. Role of sedimentary processes and environmental factors in determining the distribution pattern of diatoms and marine/terrestrial palynomorphs in a tropical coastal wetland. *Journal of the Palaeontological Society of India* 60(2), December 2015, 71-84.
- 11. Hussain SM, Nishath NM, **Srivastava J**. Distribution and environmental implications of foraminifera in the core samples of Kollidam and Marakkanam mangrove locations, Tamil Nadu, South-east coast of India. *In*. Lakes and wetlands (eds. Vasudevan S, Ramkumar T, Singhal RK, Rajanikanth A, Ramesh G. 2015 Partridge Publishers, 314-333.
- 12. **Jyoti Srivastava** and Vandana Prasad (2015). Effect of global warming on diversity pattern in Nypa mangroves across Paleocene–Eocene transition in the paleo-equatorial region of the Indian sub-continent. *Palaeogeography, Palaeoclimatology, Palaeoecology* 429, 1–12.
- 13. **Jyoti Srivastava** and Anjum Farooqui (2014). Environmental impact on Palynological Assemblage and Thecamoebians in the Tributary of Uppanar River, Cauvery Delta during the last 3300 years. *Journal for Geological Society of India* 84, 459–466.
- 14. Anjum Farooqui, J. N. Pattan, G. Parthiban, **Jyoti Srivastava** and Ranjana (2014). Palynological record of Tropical rainforest vegetation and sea level fluctuations since 140 ka from sediment core, south-eastern Arabian Sea. *Palaeogeography, Palaeoclimatology, Palaeoecology*, DOI: 10.1016/j.palaeo.2014.06.020.
- 15. **Jyoti Srivastava**, Anjum Farooqui and S.M Hussain (2013). Climate induced Late-Holocene ecological changes in Pichavaram Estuary, India. *Marine Ecology*, 34, 474–483.

- 16. **Jyoti Srivastava** and Anjum Farooqui (2013). Late Holocene mangrove dynamics and coastal environmental changes in the Northeastern Cauvery River Delta, India. *Quaternary International*, 298, 45-56.
- 17. M.F. Quamar and **Jyoti Srivastava** (2013). Modern pollen rain in relation to vegetation in Jammu, Jammu and Kashmir, India. *Journal of Palynology*, 49, 19-30.
- 18. **Jyoti Srivastava**, Anjum Farooqui and S.M Hussain (2012). Vegetation history and salinity gradient during the last 3700 years in Pichavaram Estuary, India. *Journal of Earth system sciences*, 121(5), 1229–1237.
- 19. **Jyoti Srivastava**, Anjum Farooqui, and S.M.Hussain (2012). Sedimentology and salinity status in Pichavaram mangrove wetland, South east coast of India. *International Journal of Geology, Earth and Environmental Sciences (Online)*, 2 (1), 7-15.
- 20. **Jyoti Srivastava**, Anjum Farooqui, and S.M.Hussain (2011). Ecological changes in Pichavaram estuary during the last 4 millennium. *International Journal of Geology, Earth and Environmental Sciences (Online)*, 1 (1), 18-26.
- 21. Anjum Farooqui, S.M.Hussain, S. Arikesan and **Jyoti Srivastava** (2010). Deposition of biotic forms in the surface and sub-surface sediments of the Pichavaram estuary and adjoining areas. *Journal of Soil Science, Ukranian Academy of Sciences*, 1-2, 28-40.
- 22. Anjum Farooqui, **Jyoti Srivastava** and S.M.Hussain (2009). Comparative Leaf Epidermal Morphology and Foliar Na:K Accumulation in *Suaeda* species: A Case Study from Coastal Ecosystem, East Coast, India. *International Journal of Plant Morphologists* (*Phytomorphology*) Vol 59 (3&4), 102-111.

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